

R e m a r k s

Claims 1-6, 8, 10-12, 14-18, 20, 22 and 23 are pending in the application.

Claims 1-3, 14-16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch (US 6,801,777, hereinafter Rusch) in view of Ji et al. (US 2003/0185233 A1, hereinafter Ji).

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ji and further in view of Michaelis et al. (US 2004/0009751 A1, hereinafter Michaelis).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ji and further in view of Stockhusen (US 7,181,237 B2, hereinafter Stockhusen).

Claims 5, 6, 8, 18, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Michaelis.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ayyagari et al. (US2002/0176366).

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Entry of this Amendment is proper under 37 CFR 1.116 since the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; or (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is

better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewritten to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

**Rejection Under 35 U.S.C. 103(a)**

**Claims 1-3, 14-16 and 22**

Claims 1-3, 14-16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ji. The rejection is traversed.

According to MPEP §2143, to establish a *prima facie* case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable

expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Rusch and Ji fails to teach or suggest all the claim elements of Applicants' claim 1.

Rusch discloses a wireless communication device having one or more radio interfaces, a multi-channel radio controller that characterizes available wireless communication networks, and a wireless connectivity assistant that may select a communication network based on the network characteristics and at least one of user preferences, application requirements, and system information. (Rusch, Abstract). Rusch further discloses switching between wireless links of different wireless networks in response to changing conditions. (Rusch, Col. 6, Lines 13-16).

Rusch, however, fails to teach or suggest Applicants' limitation of "switching from a first one of the network interfaces to a second one of the network interfaces by changing the one of the plurality of device drivers with which the multi-interface driver communicates, while hiding the switching from the network layer," as claimed in Applicants' claim 1. Although Rusch discloses switching between wireless links of different wireless networks in response to changing conditions, Rusch is devoid of any teaching or suggestion that switching between wireless networks is performed such that the switch is hidden from the network layer, as claimed in Applicants' claim 1.

Thus, Rusch must also fail to teach or suggest at least the limitation of "wherein the switching is hidden from the network layer using a virtual interface, the virtual interface presenting the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time," as claimed in Applicants' claim 1.

Furthermore, Ji fails to bridge the substantial gap between Rusch and Applicants' claim 1.

Ji discloses a method of migrating across link technologies on an IP-based subnet while maintaining on-going communication, where the method includes selecting a link, and notifying interested hosts of the address of the selected link. Ji further discloses that a mobile computing device migrates across link technologies on a subnet while

maintaining on-going communication and comprises a link migration module selecting a link, and notifying interested hosts of the address of the selected link, and a dynamic MAC to IP binding module binding a MAC address to an IP address based upon the selected link.

Ji, however, fails to teach or suggest at least the limitation of “wherein the switching is hidden from the network layer using a virtual interface, the virtual interface presenting the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time,” as claimed in Applicants’ claim 1.

Rather, with respect to hiding link switching from the transport connection, Ji discloses that migration across link technologies is performed by selecting a link, migrating the on-going communication to the selected link, and notifying interested hosts of the address of the selected link. (Ji, Para. 0027). More specifically, Ji states that “...the present invention dynamically changes the relationship between the MAC address and the IP address.” (Ji, Para. 0030). Similarly, Ji states that “...the present invention accomplishes the migration across link technologies by dynamically binding a new MAC address corresponding to a new link technology to an IP address in use by a transport connection (through the previous binding of a prior MAC address to the same IP address), thereby shielding the link change from the transport connection.” (Ji, Para. 0047).

Ji is devoid of any teaching or suggestion that the switching between network interfaces is hidden from a network layer using a virtual interface, where the virtual interface presents the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time. Rather, Ji merely discloses dynamic, rapid changing of the MAC address that is mapped to an IP address, thereby causing resulting incoming packets to be directed to the interface corresponding to the new MAC address. Ji fails to teach or suggest the virtual interface as claimed in Applicants’ claim 1.

Thus, since Rusch and Ji each fail to teach or suggest the limitation of “wherein the switching is hidden from the network layer using a virtual interface, the virtual interface presenting the appearance of always being an active interface to the network

layer regardless of which of the network interfaces is being used at a given time,” any conceivable combination of Rusch and Ji (assuming that such combination is even possible) also fails to teach or suggest the limitation of “wherein the switching is hidden from the network layer using a virtual interface, the virtual interface presenting the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time,” as claimed in Applicants’ claim 1.

As such, Applicants’ claim 1 is patentable over Rusch in view of Ji under 35 U.S.C. 103(a). Similarly, independent claims 14 and 22 recite relevant limitations similar to those recited in independent claim 1. Therefore, for at least the same reasons discussed above, independent claims 14 and 22 also are patentable over Rusch in view of Ji under 35 U.S.C. 103(a). Furthermore, since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Rusch in view of Ji.

Therefore, the rejection should be withdrawn.

**Claims 5, 6, 8, 18, 20 and 23**

Claims 5, 6, 8, 18, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Michaelis. The rejection is traversed.

According to MPEP §2143, to establish a *prima facie* case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness because the combination of Rusch and Michaelis fails to teach or suggest all the claim elements of Applicants' claim 5.

Rusch discloses a wireless communication device having one or more radio interfaces, a multi-channel radio controller that characterizes available wireless communication networks, and a wireless connectivity assistant that may select a communication network based on the network characteristics and at least one of user preferences, application requirements, and system information. (Rusch, Abstract). Rusch further discloses switching between wireless links of different wireless networks in response to changing conditions. (Rusch, Col. 6, Lines 13-16).

Rusch, however, fails to teach or suggest at least the limitation of "selecting one of the network interfaces based on the characteristics of the respective network interfaces, wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface," as claimed in Applicants' claim 5.

Rather, although Rusch discloses characterizing available wireless networks and selecting one of the available wireless networks based on the characterizations of the available wireless networks, Rusch merely describes information which may be used in characterizing available wireless networks. Specifically, Rusch states that radio controller 110 may determine current network and service information, monitor communications of the available wireless networks, interrogate available wireless networks, determine geographic location information. Rusch further states that element 118 stores system information such as battery/power characteristics, video display characteristics, and other information, and that element 116 stores user preferences such as preferred communication carrier, quality preferences, power constraints, and privacy information. (Rusch, Col. 4 – Col. 5).

Rusch is devoid of any teaching or suggestion of any weights applied to user priority values, much less that a weight applied to the user priority value for a network interface depends on the respective signal strength for that network interface, as claimed in Applicants' claim 5. Although Rusch describes some examples of user preferences that may be used in selecting an available wireless network, Rusch is devoid of any teaching

or suggestion of any weight applied to a user priority value, much less that a weight applied to the user priority value for a network interface depends on the respective signal strength for that network interface, as claimed in Applicants' claim 5.

Furthermore, Michaelis fails to bridge the substantial gap between Rusch and Applicants' invention of at least independent claim 5.

Michaelis discloses interface selection in a wireless communication network by assigning priorities to available interfaces, identifying which of the interfaces satisfy all interface selection rules, and, where multiple interfaces satisfy all interface selection rules, selecting the interface having the highest priority. Michaelis further discloses that an assigned priority may be adjusted based on the connection state of interfaces, system latency, and interface cost. (Michaelis, Abstract).

Michaelis, however, fails to teach or suggest at least the limitation of "selecting one of the network interfaces based on the characteristics of the respective network interfaces, wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface," as claimed in Applicants' claim 5.

Michaelis is devoid of any teaching or suggestion of a user priority value associated with a network interface. Rather, Michaelis merely states that a priority is assigned to each interface. More specifically, Michaelis states that the priorities assigned to network interfaces "...permit the network interfaces to be prioritized in terms of relative cost, latency, bandwidth, signal strength, quality of service (QoS), bearer requirements, or the like." (Michaelis, Para. 0004). Michaelis, however, is devoid of any teaching or suggestion of a user priority value, as claimed in Applicants' claim 5.

Furthermore, Michaelis is also devoid of any teaching or suggestion that any priority value associated with a network interface depends on the signal strength for that network interface. Rather, with respect to dynamic adjustment of the priority assigned to an interface, Michaelis merely states that the priorities assigned to the network interfaces may be adjusted based on the connection state of the interfaces, where connection state is defined as whether or not the network interface is connected to an associated access point. Michaelis is devoid of any teaching or suggestion of any relation between a user priority value and a signal strength, much less that, for each network interface, a weight

applied to a user priority value associated with the network interface depends on the signal strength of the network interface, as claimed in Applicants' claim 5.

As such, at most, Michaelis may be considered to disclose a system in which a priority is assigned to a network interface based on signal strength of the network interface and the assigned priority is adjusted based on a connection state of the network interface. By contrast, Applicants' claim 5 includes a limitation that, for each network interface, a weight applied to a user priority value associated with the network interface depends on the signal strength of the network interface. Michaelis is devoid of any teaching or suggestion of any such relation between user priority values and signal strengths.

Thus, since each of Rusch and Michaelis fails to teach or suggest the limitation of "wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface," any permissible combination of Rusch and Michaelis also fails to teach or suggest the limitation of "wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface," as claimed in Applicants' claim 5.

Furthermore, Applicants note that a system according to the combination of Rusch and Michaelis (assuming such combination is even possible, which Applicants maintain that is it not due to the different prioritization and selection schemes of the two references) would merely provide a system in which available networks / network interfaces are characterized using the parameters of Rusch and/or Michaelis (none of which include a user priority value) and one of the networks / network interfaces is selected based on the parameters of Rusch and/or Michaelis; and, where a priority value is assigned for "tie-breaking" purposes as disclosed in Michaelis, that the priority value may be adjusted based on connection state. Thus, a system according to the combination of Rusch and Michaelis would still fail to teach or suggest the specific limitation that weights applied to user priority values of network interfaces depend on signal strengths of the respective network interfaces, as claimed in Applicants' claim 5.

As such, Applicants' claim 5 is patentable over Rusch in view of Michaelis under 35 U.S.C. 103(a). Similarly, independent claims 18 and 23 recite relevant limitations similar to those recited in independent claim 5. Therefore, for at least the same reasons

discussed above, independent claims 18 and 23 also are patentable over Rusch in view of Michaelis under 35 U.S.C. 103(a). Furthermore, since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Rusch in view of Michaelis.

Therefore, the rejection should be withdrawn.

**Claims 4, 10, 11, 12 and 17**

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ji and further in view of Michaelis. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ji and further in view of Stockhusen. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusch in view of Ayyagari. The rejections are traversed.

Each ground of rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Rusch in view of Ji. Since the rejection under 35 U.S.C. 103 given Rusch in view of Ji has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Michaelis, Stockhusen or Ayyagari supplies that which is missing from Rusch to render the independent claims obvious, these grounds of rejection cannot be maintained..

Therefore, the rejections should be withdrawn.

**Conclusion**

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

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Eamon J. Wall  
Registration No. 39,414  
Attorney for Applicants

PATTERSON & SHERIDAN, LLP  
595 Shrewsbury Avenue, Suite 100  
Shrewsbury, New Jersey 07702  
Telephone: 732-530-9404  
Facsimile: 732-530-9808